

MEDICAL EDUCATION IN THE UNITED STATES

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In 1957 three medical students from Oxford, Cambridge, and London spent part of a summer vacation observing teaching methods at three American medical schools. They were very impressed with the undergraduate training and the enthusiasm of the students. Their findings were discussed in *The Lancet* (Cohen, Hughes, and Richardson, 1957). These views were subsequently given wide publicity in the United Kingdom and in the United States. Since that time I have been to the United States on two occasions. I spent over one year working and studying as a full-time student in an American medical school. Subsequently I completed my medical studies at the Queen's University of Belfast. I feel that although the points made by Cohen et al. in favour of the American schools are interesting and challenging, they do need some explanation.

HIGH SCHOOL.

In order to understand medical education in the U.S.A. it is necessary to know a little about general education in that country. All Americans attend high school until 17 or 18 years of age. This democratic ideal raises the level of education of the majority but pulls the best pupils down towards the lowest common denominator. Many medical students admitted to me that they "hardly cracked a book at high school." An Edinburgh headmaster, on an exchange visit, said that the main purpose of American education is to equip students with social poise and confidence. Thus, on leaving school, the transition to the adult world is not so abrupt.

COLLEGE.

After high school many students attend an undergraduate college for four years and take a general college degree. It is here that basketball and fraternities flourish. After two years in college the academic level is about the same as matriculation in the United Kingdom; except that the American student may have started subjects outside the British school curriculum such as, semantics, accountancy, or anthropology.

GRADUATE SCHOOL.

University education as we know it begins *after* college education. At this point the best students go to graduate school to study such subjects as law or medicine. The average age of entrants to graduate school is about 22 years.

In the United States the prestige of the doctor is exceptionally high. Thus there is strong competition for admission to American medical schools. There are about ten applicants for each place. Each applicant must have a college degree which includes subsidiary courses in physics, chemistry, biology. Medical school deans have made it clear that they wish to encourage pre-medical students to

specialise in the humanities whilst at college. However, because of the pressure ahead, most of the students ignore this advice and anticipate their medical studies by reading bacteriology, histology, genetics, biochemistry, comparative anatomy, physiology, or psychology. Moreover, each applicant for medical school must sit a national entrance examination and also attend for a series of lengthy interviews. Referees are closely questioned about the applicants' suitability for medicine. Few women are admitted to medical school. There was only one girl in a class of sixty students. Many students are married and an occasional one even divorced.

EXAMINATIONS.

Cohen et al. felt that "the worst kind of incentive—fear of examinations—has been largely removed" in American medical schools. This is not so. The strain of examinations is always present. First week is probably the most traumatic. It is known as "bone week" in many schools. During that week the student studies nothing but the skeleton. The following week he is examined on it and his marks count towards his final percentage. It is essential to get off to a good start. If the student obtains a low mark he may find it impossible to recover his grade. One student, whom I knew, fell ill for three weeks and automatically lost the whole year. These small examinations, which may be oral or written (multiple-choice, short answer or essay), continue weekly or fortnightly throughout the entire curriculum. However, there are only a few failures. These are usually in biochemistry in which the standard is high. Careful selection of students eliminates "bad risks." As a result, most of these carefully selected students are certain to finish in the required time.

Examinations at the University of Virginia and several other medical schools are conducted without an invigilator. Each student signs a pledge of honour at the end of his paper. The thought of future doctors cheating and lying is properly considered as absurd.

INTENSE WORK.

American medical schools are costly and there are very few scholarships. The competition is keen. On the first day of the first semester the American student works as hard as his British counterpart does before the final examination. The intense enthusiasm is seen in every aspect of the student's work. For instance, many students make tape recordings of important lectures and play back the lectures afterwards to clear up gaps in their notes. Most students study each evening and week-end and have no extra-curricular interests. The anatomy dissection room is open day and night, Saturday and Sunday. A visiting anatomy teacher described how one American student requested home ten minutes early because his wife was in labour. An English surgeon lamented, "They must have taken the fun out of medicine."

Cohen et al. noted that, in contrast to the British student, the American student is keenly interested in research and he attempts to keep up with the journals. This is surprising because the educational systems are more likely to produce the opposite result. For instance, when the American college student takes a four-month course in, say, geology, he is left with the feeling that he knows the

fundamentals of that subject. The British student, on the other hand, is more likely to be conscious of the remaining gaps in his knowledge. Sir Geoffrey Crowther noted this and said that in the U.S.A. education is like filling up a series of empty bottles, whereas in Britain it is like lighting a fire.

DEGREE STANDARD.

The M.D. is the only degree awarded in medicine in the United States. Before 1911 it was almost possible to buy this degree at one of the old "diploma mills." However, since then the curriculum has been scrutinised and standardised by the American Medical Association and the medical degree is now one of the most difficult to obtain. European observers are occasionally apt to underestimate the standard of the American medical degree, because, unfortunately, there are still a few obscure undergraduate colleges in the U.S.A. that award honorary degrees of doubtful merit in athletics and divinity.

CONCLUSIONS.

There are a number of important differences between British and American medical education:

Firstly, the American college acts as a filter where students are able to mature before deciding whether to study medicine. The enthusiasm of those attracted only by the glamour may wane and, consequently, they will drop out before excluding someone else from a place. At the same time those who have not yet decided about medicine can sample pre-medical courses without committing themselves.

Again the examination system in the U.S.A. is more satisfactory. Americans are amused at the ridiculous figure of the British student in his best Sunday suit undergoing a massive inquisition during the final ten days of terror. In the United States the final examination is spread out thinly over the whole curriculum. As a result, the American medical student works hard from start to finish and cramming is unknown.

Above all, however, the additional incentive to study medicine in the U.S.A. must be admitted; even the students enjoy an incomparable standard of prestige.

REFERENCE.

COHEN, R. D., HUGHES, D. T. D., RICHARDSON, P. C. (1957). *Lancet*, 2, 407.